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Peru's Development Folly

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Jan Sochor/LatinContent/Getty Images

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For all the obvious reasons, much of our focus on climate change has been on how it will affect people and places close to home. But the impact on dozens of countries struggling to reach (or sustain) middle-income status is no less important just because they are largely out of sight. Take, for example, Peru.

The Intergovernmental Panel on Climate Change ranks the country as one of the most vulnerable to global warming. IPCC’s statistical models predict that Peru will suffer a major decline in precipitation (mostly in the form of less snow in the mountains), leading to chronic water shortages that degrade agriculture, urban living standards and hydropower production. The impact is expected to be especially severe along the western coastal plain that borders the Pacific, where Lima, along with more than half the country’s population and most of its economic activity, are located.

Drought is par for the course on this arid coastal plain, which receives most of its water from glacial melt in the high Andes that feeds westward-flowing rivers and, indirectly, underground aquifers. These glaciers have been in deep trouble for decades, melting ice faster than the snow regenerates it. They’ve lost a stunning one-third of their volume since 1970, and scientists anticipate that many will disappear entirely within the next half century.

Après Nous, No Deluge

Faced with this near-certainty, a prudent government would be scrambling for an adaptive strategy focused on conservation and creation of new water resources. Yet Peru’s leaders, under pressure to raise living standards now, are instead pursuing an extractive development model centered on water-intensive mining and — most important — high-value export agriculture.

That policy has been a success in the short run. Indeed, it has helped produce one of the fastest rates of economic growth in Latin America (5 percent annually from 2000-17 compared to 2.8 percent for the region as a whole). However, since the export agriculture component was added in the 1990s, water usage in the Pacific region has been expanding faster than sustainable supply. Conflicts are already arising, pitting traditional users (city dwellers, small farmers) against hydroelectricity producers, mining interests and agribusiness.

In the past, these conflicts would have been managed, for better or worse, by local user committees. But in 2009, local control was superseded by the National Water Authority (ANA), ostensibly modeled on the state-of-the-art Integrated Water Resource Management system recommended by the United Nations for coping with scarcity. The ANA is an independent authority formally tasked with finding equitable solutions that balance the needs of competing interests. In practice, though, the authority has a soft spot for agribusiness and has been singularly unsuccessful in playing the part of honest go-between.

Take, for example, the water calamity that has arisen from asparagus cultivation in the arid Ica Valley in southwestern Peru. With encouragement (as well as loans) from the World Bank Group, the government began offering agribusinesses a combination of tax breaks, lax labor regulations and cheap water to encourage cultivation of a vegetable heavily demanded in Europe and the U.S. The Ica Valley's asparagus farms initially proved a stunning economic success, employing nearly 40 percent of the local labor force and making Peru one of the world's leading asparagus exporters. But asparagus irrigation sucks so much water so rapidly from local wells that the valley is now at risk of becoming nearly uninhabitable in the not-too-distant future.

With hindsight, it's difficult to understand how this could have happened in an environmentally conscious era. On average, the Ica Valley receives less than half an inch of rain a year and relies on aquifers for its water, whose only source of replenishment is the aforementioned glacial melt. Since the introduction of asparagus, irrigation pumping has exceeded the amount of aquifer recharge, causing the water table to sink up to eight meters (*no misprint*) a year. By contrast, cultivation of drought-tolerant (though less valuable) crops had allowed the valley's traditional farmers to maintain water tables at stable levels for decades.

At current pumping rates Ica's aquifers will likely be dry within a decade.

The current imprudent draw has forced the drilling of progressively deeper wells, and traditional farmers, who can barely afford rising pumping costs in the best of circumstances, are in no position to join in the competition to see whose drill bits can reach China first. Indeed, supplies are already so short that urban water for residential use is rationed, with allotments now set at less than the minimum recommended by public health organizations.

Government attempts to conserve what little water is left by instituting a moratorium on drilling have been circumvented by agribusinesses, which bribe government officials on the ground. At current pumping rates Ica's aquifers will likely be dry within a decade .

When at First You Don't Succeed

Even as the Ica Valley's water table collapses, the government seems determined to replicate the feat of generating quick export revenues in other locales. A massive project to transfer water from the eastern slopes of the Andes to desert farms in the Olmos Valley on the northern Pacific coast is nearing completion. Already, some 106,000 acres of land (along with

rights to irrigation water) have been sold to 10 agribusinesses. In addition to asparagus, the Olmos Valley agribusinesses plan to grow similarly water-intensive crops including blueberries, avocados and cranberries.

The decision to double-down on agribusiness seems especially shortsighted in light of the finances. At an estimated cost of $800 million, the project represents not only a gross misallocation of Peru's water resources but a long-term drain on the budget. The Peruvian government contributed $450 million to the project (again with loans financed from the World Bank Group), while the ethically challenged Brazilian construction company Odebrecht invested $350 million.

After Odebrecht CEO Marcelo Odebrecht was sentenced to prison for corruption back home in Brazil, the company sold its share in the Olmos extravaganza. Nonetheless, Odebrecht is currently charged on a number of counts of corruption associated with its projects in Peru, including Olmos. Meanwhile, Pedro Pablo Kuczynski, the president of Peru, resigned in order to avoid impeachment because of his links to Odebrecht.

Over the Cliff

The folly being played out in the desert valleys of Peru is not simply the result of ill-informed government decisions and myopic interest group politics. The World Bank Group must share some of the blame for supporting environmentally unsustainable projects that increase Peru's water insecurity, even as the country faces a much drier future thanks to climate change.

The misallocation might still be offset if improved water management were promptly implemented. But this is asking a lot of a government that has shown little capacity to resist the blandishments (legal and illegal) of agribusiness and the lure of short-term gains to be had in flying fresh produce to New York and Toronto. Peru is hardly the first country to choose a myopic growth strategy. Alas, if history is any lesson, the metaphoric horses will be long gone before the barn door is closed.